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THE TRAINING AND EXPERIENCE OF THE TEACHERS IN THE HIGH SCHOOLS ACCREDITED BY THE NORTH CENTRAL ASSOCIATION

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How to secure and retain a body of superior teachers should be the first and foremost concern of any group of educational reformers. Judging from the expressed views of superintendents, principals, and other administrative officers, this is, indeed, their chief concern. Nor does the question interest only the practical school administrators. The educational theorist has for ages sought to suggest the qualities that make an ideal teacher, and more recently has formulated a great variety of scales for judging the elements of strength and weakness of teachers and for rating them in accordance with scientific standards. A notable defect of many of these scales is that they have not been based upon the compilable facts, but have been formulated upon the basis of what groups of administrators or theorists have thought ought to be the facts. In other words, an extensive statistical study of the actual training, experience, and practices of teachers has been lacking. In consequence, the proposed rating scales and the proposed plans for aiding teachers to continue systematically their professional development while in service have been far from satisfactory.

In order to secure positive data from which to make scientific deductions, the Commission on Secondary Schools of the North Central Association of Colleges and Secondary Schools undertook this year to make an exhaustive statistical study of the classroom teachers in the North Central territory. Inasmuch as one year ago a study was made of the duties of high-school principals, these officers were not taken into special account this year. Nevertheless, since a very large majority of the principals and superintendents in the North Central territory conduct classes as well as

perform special administrative duties, these persons were included, but were considered merely in their capacities as teachers.

In order to secure the desired data a questionnaire was prepared and sent to every teacher in the secondary schools accredited by the North Central Association. Moreover, in several of the states, the same questionnaire was sent to all teachers in the smaller high schools—schools not accredited by the Association. The questionnaire called for information grouped under seven main categories, namely,

I. General information (name, address, age, marital state, and general expectation respecting continuance in the teaching profession).

II. Academic training.

III. Professional training.

IV. Teaching experience.

V. Salary.

VI. Graduate study, together with an evaluation of the types of instruction offered in teacher-training institutions.

VII. For teachers of vocational studies, the special vocational training possessed.

Although the questionnaire contained ninety-four specific questions to be answered (and for teachers of vocational subjects nine additional questions), each one of these, except in the case of the six or eight questions calling for general information, was so worded that the answer was necessarily unequivocal and was indicated by a single word, by definite figures, or by a check mark. The writer filled out a copy of the questionnaire in less than eight minutes.

Nevertheless, despite the simplicity of the task, the definiteness of the questions, and the urgent request that every teacher should co-operate wholeheartedly and answer every question, scores of questionnaires were returned incompletely and carelessly filled out. On the other hand, many individuals were overly conscientious and exact in making replies, not infrequently figuring out their hours of training and years of experience to a fraction of a unit.

While, therefore, the returns from the questionnaire cannot be regarded as complete or mathematically precise in every respect, the deficiencies and the misinformation certainly cannot be regarded

as wholly invalidating the study or the general conclusions derived therefrom. Few individuals made replies to every item, nor could they have been expected to do so, but the great majority answered such questions as directly related to their experiences. Thus, for example, one division of the blank called for data respecting normal-school training. Individuals who had not had such training obviously passed over this section without comment. The same is true of those lacking university training, graduate study, teaching experience in rural schools, or several other groups of experiences. The result is that no two questions on the blank were answered by precisely the same number of individuals. In consequence, wherever percentages are given in the compilations, the total number replying to a given item was taken as the base.

Approximately 26,000 questionnaires were filled in and returned by the teachers in the accredited secondary schools of the Association. Except in the cases of three of the smaller states, all of these reports were sent to the secretary of the Commission for compilation. The three small states compiled their own data. For nearly ten weeks the secretary had a staff of about forty graduate students and Seniors in the University of Michigan devoting all of their available spare time to checking and recording the returns. The reports from teachers in non-public schools (private, military, and parochial schools) were separated from the others and are to be analyzed by themselves at a later date. The remaining reports—from teachers in public high schools only—were then grouped under the following classifications:

1. Male academic teachers.
2. Female academic teachers.
3. Male vocational teachers.
4. Female vocational teachers.
5. Administrators (superintendents and principals) who do no teaching.

Inasmuch as a rule of the Association provides that any teacher teaching one or more academic subjects must meet the complete standards set for academic teachers, all persons teaching both academic and vocational subjects were listed as academic teachers.

Classified thus, the number of teachers in each group is as follows:

Male academic teachers.....	5,203
Female academic teachers.....	10,681
Male vocational teachers.....	2,846
Female vocational teachers.....	4,743
Non-teaching administrators.....	890
Total.....	24,363

In making the compilations, the totals for each group were recorded by states. Because of the expense of printing the elaborate tables, only the summaries are given here.¹

Nearly 16,000 teachers belong to the academic group. Of these, 1,944 teach both academic and vocational subjects; that is, 12.2 per cent of the teachers listed as "academic" do not ordinarily consider themselves as such and no doubt, in many instances, have not prepared themselves specifically to teach academic subjects. Of the total number reporting, 32.8 per cent are men, and 67.2 per cent are women. Of the men, 62.5 per cent are married, and 37.5 per cent are unmarried. Among the women only 5.9 per cent are married, while over 94 per cent are single.

The great majority, 68.1 per cent, of teachers in our high schools began teaching when they were between the ages of twenty and twenty-five. However, 25.7 per cent of them began to teach before they had reached the age of twenty, and 6.3 per cent began after they had reached the age of twenty-five.

At the present time, but 45 of a total of 14,806 reporting are under twenty years of age, and only 207 are above sixty years of age. Between these two extremes, the ages are distributed very uniformly, 3,918, or 26.5 per cent, being between the ages of twenty and twenty-five; 4,038, or 27.3 per cent, between the ages of twenty-six and thirty; 4,390, or 29.7 per cent, between the ages of thirty-one and forty; and 2,208, or 14.9 per cent, between the ages of forty-one and sixty. The median age for men is slightly over thirty years and for women about midway between twenty-six and thirty

¹ The tables showing these summaries can be found in Part I of the *Proceedings of the Twenty-seventh Annual Meeting of the North Central Association of Colleges and Secondary Schools*, 1922.

years. About 36 per cent of the men and about 54 per cent of the women state that their homes are in places different from the towns in which they are teaching. These figures indicate that there is not so much employment of "home talent" as some adverse critics have seemed to think.

Most of the men and about three-fourths of the women who are now teaching say they expect to continue permanently in school work, provided the opportunities are made sufficiently attractive. Three hundred and sixty-seven (367) men and 1,041 women state frankly, however, that such is not their expectation.

When the academic training of the teachers is considered, the following interesting facts are disclosed. Of the 15,672 teachers reporting, all but 1,169 received their elementary education in the public schools, and 40 per cent of them received this education in whole or in part in rural schools. The percentage of men teachers coming from the country is 58.9; of women, 29.8. The school, therefore, seems to continue to be the road to promotion for large numbers of ambitious sons and daughters of farmers.

All but about 12 per cent of the teachers have graduated from public high schools. About 8 per cent have come from private secondary schools, 1 per cent from parochial schools, and 3 per cent from other types of schools.

About 51 per cent of the men and 36 per cent of the women have graduated from high schools that enrolled approximately 100 pupils, while only 10 per cent of the men and 18 per cent of the women have come from the larger high schools—the schools that enrol considerably more than 500 pupils. These figures show again that the recruiting territory for large numbers of our public-school teachers is the rural district or the small town. Whether it is the influence of social prejudice that operates in our large cities to deter young people from engaging more largely in teaching, the more lucrative enticement of business, or the unwillingness of many city youths to subject themselves to the severe training demanded of teachers, or whether there is a lack of intellectuality and emotional qualities in city-bred children that would qualify them to become successful teachers, are questions that cannot be answered here.

It may be somewhat surprising, also, to know that 19.9 per cent of the teachers have had less than a four-year course in the high school. This doubtless means that nearly 20 per cent of the teachers pursued secondary-school subjects in rural schools and were given a certain amount of "advanced credit" when they entered the high school or that many of them entered the preparatory department of normal schools or colleges and completed their secondary education there. Just what percentage of teachers have had this experience the data at hand do not reveal.

It is interesting to note, too, that 74.7 per cent of all academic teachers pursued the classical curriculum in high school. This doubtless means that this number pursued Latin for at least two years, as few accredited schools give credit for less than two years of foreign language study. The women who pursued the classical curriculum outnumber the men, the ratio being 4 to 3. Next to the classical curriculum, the scientific curriculum enrolled the largest number of later teachers, the percentage of all being 14.7. Less than 1 per cent of the teachers claim to have finished the commercial curriculum, less than 2 per cent the practical arts curriculum, and less than 4 per cent the "general" curriculum. An additional 4 per cent state that they finished some other curriculum.

If it be granted, as has sometimes been claimed, that the more serious-minded, capable, and hard-working students elect to pursue the classical curriculum—or, at least, the Latin-scientific curriculum—in the high school, then the figures here given seem to indicate that the public-school teachers are recruited from the boys and girls of the high school who possess the best intellects and habits of work.

Of the approximately 16,000 academic teachers replying to the questionnaire, only about 4,000 appear to have studied in a normal school. Of these, 28.7 per cent remained but one year; 39.0 per cent, two years; 13.3 per cent, three years; 13.9 per cent, four years; and 5.1 per cent, more than four years. Sixty-seven and seven-tenths (67.7) per cent of the men and 72.9 per cent of the women remained two years or less. More than 75 per cent of the normal-school attendants were educated in state normal schools, about 11 per cent in city normal schools, and about 10 per cent in

private normal schools. On the other hand, 14,449 academic teachers have had one or more years' training in college or university, 60 per cent having spent four years in such an institution and 20 per cent having spent more than four years. As distributed over the various types of institutions of higher learning the figures are as follows: state, 39.5 per cent; denominational, 28.2 per cent; endowed, 19.5 per cent; municipal, 1.2 per cent; wholly private, 1.8 per cent; partly one, partly another, 9.7 per cent. These figures indicate that the denominational colleges and the endowed undenominational colleges and universities are together training nearly one-half of the academic teachers in the North Central Association territory.

Of 16,292 teachers, 835, or 5.1 per cent, have no college degree whatever. Of the others, about 35 per cent have received the Bachelor's degree from a state university; about 26 per cent, from a denominational college; and about 25 per cent, from an endowed-undenominational college or university.

A total of 1,870 persons holding academic classroom positions only in the North Central accredited schools have the Master's degree. Moreover, 26 persons hold the Doctor's degree. These numbers do not include the principals and superintendents who do no teaching but confine themselves solely to administrative duties. There are 285 individuals in this group who hold the Master's degree and about 25 who hold the Doctor's degree. Add to these numbers 5 vocational teachers with the Doctor's degree and 233 vocational teachers with the Master's degree, and there is a total of 56 with the Doctor's degree and 2,388 with the Master's degree. In 1917, when a similar analysis was made, there were about 50 with the Doctor's degree and 1,668 with the Master's degree. When the facts show that 726 more teachers and administrators with advanced degrees are found in our schools today than were found five years ago, there is some cause for the belief that the quality of instruction in our schools is improving.

Of the academic teachers, 93.4 per cent had in college what was styled a major subject; 89.3 per cent had a minor subject; and 65.3 per cent had two minor subjects. In the case of 74.2 per cent the number of semester hours pursued in the major subject was

more than twenty-five, while in the case of an additional 20.9 per cent the major subject was pursued for from fifteen to twenty-five credit hours. The median for the first minor subject was in excess of twenty-five hours, and for the second minor subject in excess of ten hours. Moreover, 66.8 per cent of the teachers pursued what was called a "teacher's course" in either the major or the first minor subject, or both. However, 33.2 per cent of the teachers did not have such a course. Furthermore, 6,832 teachers of a total of 12,443 have had systematic work in the field of specialization since they graduated with the Bachelor's degree. This is 54.9 per cent of the entire group.

All of these figures seem to show that the academic teachers in the North Central schools are prepared in the subject-matter which they are teaching about as fully as can be expected and that a majority of them are continuing their systematic preparation.

Of 15,147 academic teachers, 10.2 per cent received their professional training in normal schools, 67.3 per cent in colleges and universities, 20.9 per cent in both normal schools and colleges and universities, and 1.5 per cent in technical schools.

Of the individuals trained in the normal schools, 46.1 per cent had observation work in high-school teaching, 52.5 per cent had practice teaching in elementary-school subjects, and 53.1 per cent had practice teaching in high-school subjects. From these figures, it seems clear that even of those teachers trained in normal schools fewer than one-half get opportunities for observing superior teaching, and only approximately the same number are given practice teaching in high-school subjects. Where practice teaching was had, the work was well supervised from the viewpoint of the novices themselves, and the amount of time devoted to it ranged well above thirty class periods. This might mean teaching one class a day five days a week for six weeks, full-time work each day for a single week, or some other distribution giving the same total.

It is, however, in connection with the graduates of colleges and universities that rather surprising facts are disclosed. Normal schools from their very beginnings have aimed to give a practical training to prospective teachers. Colleges and universities have

not always done so. Of 14,185 individuals, 89.3 per cent had courses in education as undergraduate students in college or university; of 10,085 of these same students, 20.7 per cent took work in education *after* they had graduated but *before* they began to teach; and of 11,181 students, 53.9 per cent have taken courses in education as either graduate or special students *after* beginning to teach. The typical undergraduate who pursues work in education at all pursues it to the extent of more than fifteen semester hours; the typical graduate student who pursues work in education pursues it for less than a total of eleven semester hours. The actual detailed figures are included in Table I.

TABLE I
PERCENTAGE OF TEACHERS PURSUING COURSES IN EDUCATION

Number of Hours	Undergraduate	Graduate
Less than 11	19.0	66.8
11-15	27.8	12.9
More than 15	53.2	20.2

Among the teachers who are college graduates, 36.4 per cent pursued no course in special methods in their field of specialization. On the other hand, 37.2 per cent of these teachers had courses of this kind aggregating one, two, or three "hours," while an additional 26.4 per cent had special methods courses amounting to more than three "hours."

As far as systematic observation of teaching is concerned, 26.0 per cent of 10,455 college-trained teachers observed elementary-school work, while 48.8 per cent of 11,618 were given opportunities to observe in high-school subjects. At the best, however, only 75 per cent of the prospective teachers coming out of our colleges and universities get any opportunity whatever to make systematic observations of classroom teaching, and the figures seem to indicate that the number is under 50 per cent.

The nature of the observation work carried on may be inferred from the following figures. The largest number of those who had observation work at all observed fewer than ten classroom exercises while in college. These constitute 36.2 per cent of the entire

number. An additional 33.2 per cent observed approximately twenty classroom exercises, while 30.6 per cent observed thirty class exercises. In the case of 31 per cent of the observers the work was distributed over more than three teaching branches, and in the case of 65.7 per cent more than three teachers were observed. More than 73 per cent secured their observation work during their Senior year in college. These figures seem to indicate that wherever colleges and universities provide facilities for observation work, they do so in varying amounts and distribute it over a fairly wide range of subjects and among a number of teachers. The principle of pedagogy which dominates the work would appear therefore to be that what young candidates for teaching positions need most is a superficial acquaintance with the methods of several personalities teaching varied subjects rather than a more thorough knowledge of skills exhibited by a limited number of persons and related to a narrow range of topics.

Eleven thousand and twelve (11,012) college-trained individuals replied to the questions relating to practice teaching. Of these, 54.4 per cent had no practice teaching in college; approximately 10 per cent taught fewer than ten sixty-minute periods; approximately 9 per cent taught about twenty class periods; another 9 per cent had approximately forty periods of practice; 5 per cent, about sixty periods of practice; and 12 per cent, considerably more than sixty practice periods. Thus it appears that of the college graduates who have in recent years entered the profession of teaching in North Central accredited high schools, more than one-half have had neither practice teaching nor observation work of expert teaching. Further queries respecting the nature of the practice teaching which candidates had reveal the following facts: over 55 per cent of those who had practice teaching in college secured it in connection with a university or college training, model or practice high school; 23 per cent secured it in public high schools; 9 per cent in elementary schools; and 11 per cent in "other types" of schools unspecified.

Again, 56 per cent were given practice teaching in their major subject; 12 per cent also had practice teaching in their minor subject; 11 per cent had teaching experience in "varied" high-school

subjects; and 20 per cent, though definitely preparing to teach in the high school, had their practice teaching limited to classes in the elementary school. Approximately 80 per cent of all practice teaching was carried on during the Senior year in college, while in 20 per cent of the cases it was provided in the Junior year. Eighty-five (85) per cent of those making replies declare that the practice teaching was had under the close supervision of expert supervisors, although about 14 per cent say such was not the case. Nine hundred and sixty-one (961) persons, or 15.7 per cent of all those replying, seemed to think so well of practice teaching that they elected to pursue work in it both in normal school and in the university.

One other item of interest relating to the teachers' training pertains to the kind of legal certificates which they possess. Of 14,821 academic teachers, 43.3 per cent hold a university or college "life" certificate, 17.7 per cent hold a university or college "limited" certificate; 11.8 per cent, a normal-school "life" certificate; 1.1 per cent, a normal-school "limited" certificate; and 26.1 per cent secured a certificate by examination or by "special permit." While, of course, it is true that a great diversity of practice exists respecting the requirements for university, college, and normal-school certificates, it is certain that all of these institutions demand considerable work of a distinctly professional sort. Nor is it usually possible to secure certificates by examination alone. Hence, the figures seem to show that all or nearly all of the teachers have had at least a modicum of systematic professional training.

A fourth main division of the questionnaire related to the experience of the teachers. A total of 15,120 academic teachers replied to this set of questions. Of these, 7 per cent had no teaching experience (other than possible practice teaching) previous to the present year; 16.5 per cent have had less than three years' experience; 19 per cent have taught three years but fewer than five; 38 per cent have taught more than five years but fewer than fifteen years; 16 per cent have taught more than fifteen years but fewer than thirty years; and 3 per cent have taught more than thirty years.

Of these teachers, 26.7 per cent have occupied their present positions for less than one year; 35.8 per cent, for less than three

years; 16.5 per cent, for three years but less than five years; 15.4 per cent, for more than five years but less than fifteen years; 5.2 per cent, for from fifteen to thirty years; and less than 0.5 per cent have occupied their present positions for more than thirty years.

All this is to say that nearly one-fourth of the academic teachers in the North Central high schools have had less than three years' teaching experience, and that 62.5 per cent of the entire number have been new to their present positions within the last three years. Furthermore, 55.6 per cent of these teachers have had teaching experience some time in their life in three or more different school systems, and 46.2 per cent of them have been employed in three or more different high schools. Indeed, but 20 per cent have had their teaching experience limited to a single school system, and but 24.5 per cent have confined their secondary-school teaching to a single high school.

Of 11,000 teachers, 38 per cent have taught in rural schools, 37 per cent in elementary-school grades below the seventh, and 36 per cent in the seventh and eighth grades. These percentages suggest that it might be interesting to attempt to determine whether teaching experience below the high school or teaching experience in the secondary school only provides better training for high-school teachers. In other words, is power gained in one field of teaching experience carried over without loss to different fields?

Of 14,198 teachers, 68.8 per cent are teaching in but a single department; 25.7 per cent are teaching in two departments; 4.4 per cent, in three departments; 0.8 per cent, in four departments; and 0.4 per cent are teaching in more than four departments. Certainly, if concentration of effort is good pedagogical doctrine, little criticism can be offered here.

A more important item, however, concerns itself with the question as to whether teachers are teaching the subjects which they specifically prepared themselves to teach. The replies to the questionnaire show that 57.2 per cent of all teachers are teaching entirely the work they prepared themselves to teach; 37.8 per cent, only in part; while 5 per cent are at present teaching subjects for which they in no wise made specific preparation and for which,

therefore, they must be very inadequately fitted. It would be interesting to know just how well prepared for their present positions are these teachers who say they are "in part" teaching the subjects they prepared themselves to teach.

Just what constitutes a suitable "teaching load" is a question that is far from being settled. The Association has said that no teacher shall be expected to teach more than six periods per day or have an aggregate of more than 150 pupils to instruct per day. The present study shows that, for the most part, the schools are observing these standards. Indeed, fewer than 2 per cent of the teachers reporting carry in excess of six periods of class work per day, although nearly 10 per cent of them have in excess of 150 pupils to instruct daily.

No question is ever more vital and interesting than that of salaries. Five years ago the median salary of academic teachers in North Central accredited high schools was something between \$900 and \$1,199.¹ Today the median lies between \$1,501 and \$2,000. In detail, the percentages are as follows: under \$1,000, 0.5 per cent; from \$1,000 to \$1,300, 5.9 per cent; from \$1,301 to \$1,500, 22.9 per cent; from \$1,501 to \$2,000, 39.8 per cent; from \$2,001 to \$2,500, 19 per cent; from \$2,500 to \$3,500, 11.3 per cent; and above \$3,500, 0.7 per cent. In other words, the salaries of more than 81 per cent of the academic teachers are between \$1,300 and \$2,500. Less than 7 per cent have salaries under \$1,300, and only 12 per cent have salaries above \$2,500.

Furthermore, teachers seem to be saving a portion of their salaries for investment or for the proverbial "rainy day." Thirty-seven and two-tenths (37.2) per cent of 13,656 academic teachers state that their salaries permit them to meet living expenses and to save 20 per cent; 32.3 per cent save 10 per cent of their salary; 14.7 per cent are able to save 5 per cent of their salary; while 15.9 per cent say that they are able to save nothing.

The facts respecting the extent and amount of salary increase were secured in still another way. The question was asked, "What actual increases in dollars have you received in salary in the past

¹ *The Accredited Secondary Schools of the North Central Association*, Bureau of Education Bulletin No. 45, p. 64. Washington: Department of the Interior, 1919.

two years?" Seven and two-tenths (7.2) per cent replied, "nothing"; 4.7 per cent, "\$50 or less"; 9.1 per cent, "approximately \$100"; 12.2 per cent, "approximately \$200"; while 66.8 per cent gave the answer, "considerably more than \$200." The evidence seems to show, too, that most, if not all, of those who had received no increases in the past two years are new teachers in the particular system this year. Furthermore, the amounts actually received by that group which reported an increase of "considerably more than \$200" were in many instances in excess of \$500.

Those teachers who were in school work in 1914-15 were asked to indicate by what percentage their present salaries are larger than they were that year. The answers reveal a range extending from 0 to considerably over 100 per cent. About 41 per cent of the teachers state that the increase was 100 per cent or more; 30 per cent report increases amounting to 50 per cent or more; while about 19 per cent say that the increases were from 25 per cent to $33\frac{1}{3}$ per cent.

These figures perhaps yield nothing different from what school people have for months "guessed," but they give this common opinion a fact basis that is desirable. It certainly is gratifying to know for a certainty that at least 70 per cent of the high-school teachers in the North Central territory are receiving salaries large enough to permit them to save 10 to 20 per cent of their salaries. There surely is no just reason for expecting teachers to engage in their profession on a financial basis less sound and less remunerative than that demanded by the typical business man.

In the sixth division of the study an attempt was made to determine the extent to which the teachers are continuing their education as graduate students in colleges and universities, their sincere judgment respecting the value of various types of professional work provided for them, and their views concerning the deficiencies of their own collegiate training and the means by which teachers may continue to grow while in service.

Of 13,378 academic teachers, 5,850, or 43.7 per cent, attended colleges or universities (summer session or other courses) during last summer or last year. No doubt this number includes the new teachers who were regularly in college a year ago and does not rep-

resent graduate students only. Nevertheless, since another item on the questionnaire shows that but 1,074 academic teachers were wholly without teaching experience at the beginning of the current school year, and a second item shows that but 3,764 teachers were occupying their present positions for the first time, it is found that the total number of teachers in service who were attending summer or other university courses last year is between 2,086 and 4,776. That is to say, between 15 and 35 per cent of the active academic teachers were in college courses last year either as summer-school or extension-course students.

An additional 26.5 per cent of the teachers have taken college courses of some kind within the past three years; 13.3 per cent have done so within the past five years; 10 per cent within the past ten years; while only 3.6 per cent have not attended any university courses since graduation. Approximately 2,500 teachers failed to answer the queries of this topic, and it is not improbable that these should also be listed as not having pursued postgraduate courses of any sort. Nevertheless, even if the omission be so interpreted, the figures show that a large percentage of the teachers are availing themselves of opportunities to pursue graduate work in college.

The amount of credit gained by these graduate students ranges from about six hours, or a typical summer term's offering, to considerably over twenty hours. All told, 7,672 academic teachers have gained college credits since the time of their graduation with the Bachelor's degree. Of these, 21.7 per cent have gained only about six hours' credit; 13.1 per cent, about ten hours' credit; 7.7 per cent, about fifteen hours' credit; 6.7 per cent, about twenty hours' credit; and 18.5 per cent have gained considerably more than twenty hours' credit. These figures check fairly well with other figures of the study which show that 1,896 of the total number of academic teachers possess either a Master's or a Doctor's degree.

Very interesting—especially to professors and administrators connected with teachers' training colleges—are the replies which express the judgment of the teachers respecting the value of courses taken in these institutions. Table II shows clearly the consensus of opinion. From this table it is seen that the psychological courses are more generally elected than any other type of course and that

a large majority of teachers consider them of large value. Indeed, only 5.6 per cent of all those voting hold them in little favor.

Next to the psychological courses, both in respect to the number electing the courses and in respect to the rank accorded to them, are the courses in methods (principles of teaching). However, nearly 10 per cent of the teachers seem to think that these courses have yielded little value to them.

Third in point of elections stand the historical courses, but the majority of teachers pursuing them claim they are not of large value. Indeed, fewer than one-third of the teachers give high rank to these courses, and 35.7 per cent declare the work to be of small value.

TABLE II
PERCENTAGE DISTRIBUTION OF TEACHERS' ESTIMATES OF PROFESSIONAL COURSES

TYPE OF COURSE	NUMBER OF TEACHERS	VALUE		
		Large	Medium	Small
Historical	9,786	32.4	31.9	35.7
Principles of teaching (methods)	11,188	60.5	30.3	9.2
Psychological	11,360	65.9	28.5	5.6
Administrative	6,680	43.1	38.8	18.0
Sociological	3,187	46.7	40.3	13.0
Tests and measurements	5,813	27.0	38.8	34.1
Vocational and industrial	4,128	30.7	31.0	38.3
Principles of education (philosophical courses)	9,340	42.5	40.0	17.5

Fourth in order of popularity stand the philosophical courses (principles of education). With a total of 9,380 persons expressing judgments respecting them, 42.5 per cent accord large value to the work; 40 per cent regard the courses as of medium value; while 17.5 per cent accord little value to them.

Administrative courses were pursued by only a few more than half as many students as some of the other types of courses mentioned. This, however, ought not to be surprising, inasmuch as the great majority reporting are academic classroom teachers and probably did not aspire to administrative phases of school work. Nevertheless, when only 43.1 per cent of the limited number of students taking these courses regard the work as of great value, while 18 per cent declare it to have little value, the facts should give rise to inquiry into the explanations thereof.

That courses in tests and measurements and in vocational and industrial education have not been elected as extensively as some other courses is, no doubt, due largely to their newness in the curriculum. Moreover, the fact that the group of teachers under consideration is composed primarily of classroom teachers and not of administrators may account for the showing that less than one-third of them find these courses of large value and that considerably more than one-third vote the work to be of little value.

Finally, the courses dealing with the sociological aspects of education appear to be well regarded, although only a relatively small number of teachers indicate that they have pursued such courses. Even among those who have elected to pursue them, there seems to be no great enthusiasm for the work, although, on the other hand, the ones that find little value in the subject are relatively few in number.

The things which the teachers lacked in their own training and which they now believe would have been of real value to them are almost unlimited in number. Of the ones mentioned, however, practice teaching has the largest number of votes (2,335). Next stands "more work in the field of one's specialization" (1,952). Then follow in order observation (1,486), more study of cultural subjects (1,337), more practical and less theoretical work (888), public speaking (845), study of school administration (740), methods (548), tests and measurements (462), more psychology (360), systematic supervision (220), and study of high-school texts (137). Besides this list, the study disclosed a goodly number of such replies as the following: athletics, art appreciation, child psychology, dramatics, music, demonstration work, library practice, philosophical studies, better instructors and better instruction in the university, more social life, greater personal contact with instructors, inspirational talks, instruction in how to study, "salesmanship and beauty culture," more time for recreation, a broader selection of courses, a study of world problems and current events, study of state school laws, vocational guidance, and vocational work.

To the query, "In what ways may the teachers best improve their efficiency while in service?" another long array of answers was received. At the top of the list in point of the number of

times mentioned is summer school, with 2,559 votes. Then come salaries sufficient to enable teachers to take advantage of broadening opportunities (2,334), private reading (2,320), lightening the teacher's load (1,572), travel (1,491), visiting days for observation of other teachers (1,370), better supervision (1,214), teachers' meetings (822), institutes (578), real homes to live in after the school day is finished (492), better programs at teachers' association meetings (473).

In addition, a great number of other ideas suggestive of ways of improving the work of the school were offered. Among these are the following: better organization of courses, more co-operation between teachers and parents, time for individual conferences with pupils, open discussions in teachers' meetings, less politics in the school, a change of jobs every five years, departmental discussion groups, some incentive for improvement, lower salaries for beginners, higher salaries for beginners, salaries paid for the entire year, bonuses for summer-school study, more intelligent school boards, more efficient superintendents, some way of forgetting the educational bunk taught in college, and, last to be mentioned but by no means least in importance, better ventilation in school buildings.

Of a more direct personal type are the following suggestions: self-study, continue being a student, more personality, contact with big men, more sleep, more exercise, more amusements, a real desire to teach, treatment that human beings ought to receive, freedom from financial worry, business experience, wider acquaintance, more work, i.e., more attention to one's job.

In summary of this part of the study it may be said that the typical academic teacher of the accredited high schools of the North Central Association is an unmarried individual, between twenty-six and forty years of age, who began teaching shortly after reaching twenty years of age, and who expects to continue permanently in the teaching profession. This individual was educated in the public elementary schools, spent four years in a public high school which enrolled about 100 pupils, graduated from the classical curriculum of that school, spent four years either in a state university or in a denominational or endowed university or college where he pursued among other studies one major and two

minor subjects. To both the major subject and the first minor subject he devoted over twenty-five semester hours and to the second minor subject in excess of ten semester hours.

While in college this typical individual also pursued a teachers' course offered in the department of his major or minor interest, carried approximately fifteen semester hours in theoretical and practical courses in education, had about twenty supervised class observations of expert teaching in elementary- or high-school subjects, and observed classes in two or three departments of instruction taught by three or more teachers. No practice teaching, however, was afforded this individual. He has, however, within the last three years pursued postgraduate courses in the university or college, either during the regular year or in summer school.

Furthermore, this typical individual has been teaching in the public schools for over five years, although he has occupied his present position for only about three years. He has already had at least three changes of position and has taught in at least two high schools. He is teaching in but a single department of work, that for which he specifically prepared himself in college. He has five class recitation periods per day, instructs from 100 to 125 pupils per day, and draws public money by virtue of the fact that he holds a university or college teacher's certificate valid for life.

The present salary of this typical individual, if a man, is between \$2,001 and \$2,500, or, if a woman, between \$1,501 and \$2,000. On this salary the individual is able to meet all legitimate expenses and to place in a savings account from 10 to 20 per cent of his salary. During the past two years, his salary has been increased considerably more than \$200; and, if he was teaching in 1914-15, his present salary as compared with what he then received is larger by from 75 per cent to considerably more than 100 per cent.

This typical individual, as he looks back over his work in education in college, has a very high regard for courses in principles or methods of teaching and for educational psychology. He holds a tempered view with respect to work in principles of education, educational sociology, and educational administration. For courses in the history of education, tests and measurements, and vocational and industrial education he has little enthusiasm. On the other

hand, this typical teacher believes that teachers' training schools may very wisely give more attention to practice teaching, observation of superior teaching, and more practical methods courses. He also regrets that he did not secure a broader cultural education, did not delve more deeply in his field of specialization, and did not have more work relating to public speaking and community life.

Furthermore, this typical teacher believes that the quickest and best way to improve while in service is by means of summer schools, private reading, travel, better supervision, teachers' meetings, and particularly the lightening of teachers' loads and salaries sufficiently large to permit teachers to take advantage of opportunities for self-development.

Space will not permit the inclusion here of similar analyses for the vocational teachers and the administrative officers. These will, however, appear in the *Proceedings of the Twenty-seventh Annual Meeting of the North Central Association of Colleges and Secondary Schools*.